

10/03/13

Agenda

- Opener
- Review Homework 2.3 day 1
 - p. 98-100 (10-26 evens, 65, 69-71)
- Section 2.3 day 2 - Solving Multi-Step Equations
 - Fractions
 - Decimals
- Start Homework 2.3 day 2
 - p. 98-100 (30-50 evens, 56-58, 75-80)

Homework out!

Grab a sheet of paper, put your name on it,
solve the following equations.

Show your work!

1. $\frac{6x}{6} = \frac{24}{6} \quad x=4$

2. $3y + 5 = -10$
 $\frac{-5}{3y} \quad \frac{-5}{-15} \quad y = -5$

3. $\frac{x}{2} - 3 = 2$
 $\frac{+3}{+3}$

$2\left(\frac{x}{2}\right) = (5)2$
 $x = 10$

4. $\underline{1}y + 3 + \underline{2}y = 12$

$3y + 3 = 12$
 $\frac{-3}{-3} \quad \frac{-3}{-3}$
 $\underline{3y} = \underline{9}$
 $\frac{3}{3} \quad y = 3$

5. $\frac{5(2x-3)}{5} = \frac{15}{5}$

$x=3$
 $2x - 3 = 3$
 $\frac{+3}{+3} \quad \frac{+3}{+3}$
 $\underline{2x} = \underline{6}$
 $\frac{2}{2} \quad \frac{6}{2}$

Section 2.3 - Solving Multi-Step Equations day 2 Target 2B

Review:

$$6p - 2 - 3p = 16$$

$$6(4x + 2) = 7$$

Rewrite Fractions
Using a Common
Denominator

$$CD=12 \quad 4 \cdot 3=12$$

Multiply Equation
by a Common
Denominator

Problems
Involving
Fractions
(two methods)

$$\frac{3}{3} \cdot \frac{3}{4}x - \frac{4}{3} \cdot \frac{1}{3}x = 10$$

$$\frac{9}{12}x - \frac{4}{12}x = 10$$

$$\frac{12}{5} \cdot \left(\frac{5}{12}x \right) = \left(\frac{10}{1} \right) \frac{12}{5}$$

$$x = \frac{120}{5}$$

$$x = 24$$

$$\frac{12}{1} \cdot \left(\frac{3}{4}x - \frac{1}{3}x = 10 \right)$$

$$9x - 4x = 120$$

$$\frac{5x}{5} = \frac{120}{5}$$

$$x = 24$$

One more:

$$\frac{15}{1} \cdot \left(\frac{2}{3} + \frac{3}{5}x \right) = \left(\frac{31}{15} \right) \cdot \frac{15}{1}$$

$$10 + 9x = 31$$

$$\begin{array}{r} 10 + 9x = 31 \\ -10 \quad -10 \\ \hline 9x = 21 \\ \frac{9}{9} \quad \frac{21}{9} \end{array}$$

$$x = \frac{21}{9} = \frac{7}{3}$$

Section 2.3 - Solving Multi-Step Equations day 2 Target 2B

You Try:

$$\frac{18}{1} \cdot \left(\frac{1}{9} = \frac{5}{6} - \frac{m}{3} \right) \quad 20 \cdot \left(\frac{1}{4} + \frac{4x}{5} = \frac{11}{20} \right)$$

$$m = -\frac{13}{6}$$

$$2 = 15 - 6m$$

$$\begin{array}{r} -15 \quad -15 \\ \hline -13 = \frac{-6m}{-6} \end{array}$$

$$m = \frac{13}{6} = 2\frac{1}{6} = 2.1\overline{66}$$

Problems with Decimals:

- 0 1
- 1 10
- 2 100
- 3 1000
- 4 10000

$$100(3.5 - 0.02x = 1.24)$$

(hint: think how many places after the decimal)

$$\begin{array}{r} 350 - 2x = 124 \\ -350 \quad -350 \\ \hline \end{array}$$

$$\begin{array}{r} -2x = -226 \\ \hline -2 \quad -2 \end{array}$$

$$x = 113$$

$$0.5x - 2.325 = 3.95$$

Section 2.3 - Solving Multi-Step Equations day 2 Target 2B

You Try:	$1.06g - 3 = 0.71$
Word Problem:	Noah and Kate are shopping for new guitar strings. Noah buys 2 packs of guitar strings. Kate buys 2 packs of guitar strings and a music book. The music book is \$16. Their total cost is \$72. How much is a pack of guitar strings?
Key Info.	
Equation	
Solution	<p>HW 2.3 day 2</p> <p>98-100 (30-50 EVENS)</p> <p>56-58, 75-80</p>

Summary:

What is the best way to solve equations with decimals?

Get rid of them!!

- Multiply by a common multiple if there are fractions.
- Multiply by a factor of 10 (10, 100, 1000, etc.) to match the number of decimal places.
- Once you have gotten rid of these nasty numbers, solve!

Always CHECK your solution!!

CALCULATORS ARE YOUR FRIEND!!!!